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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/067,747

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Ryo Yamada

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08/24/2005

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EXAMINER

LI, SHI K

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,747

Applicant(s)

YAMADA, RYO

Examiner

Shi K. Li

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2002 and 19 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figures 17A, 17B, 17C, 18 and 19 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 15 recites the limitation "wherein the determination whether said new ring is identical to, crosses, or is adjacent to said existing ring is made in terms of wavelength". The same statement also appears in page 6, lines 8-10 of instant specification. However, instant specification does not teach method or procedure for determining whether a new ring is identical to, crosses, or is adjacent to another ring based on

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wavelength. That is, given a new ring using wavelength λ_1 , and another ring using wavelength λ_2 , instant specification does not teach a method, process or procedure to determine whether the two rings are identical, cross or adjacent.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 10-15 and 18-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "if the new ring to be configured is identical to an existing ring" in lines 5-6 of the claim. However, "new" means "different from one of the same category that has existed previously" and "identical" means "being the same" (see Merriam Webster's Collegiate Dictionary). Therefore, it is unclear whether the "new" ring is different from or being the same as the existing ring.

6. Claim 12 recites the limitation "said existing ring" in line 6 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "if a new ring is identical to an existing ring" in lines 1-2 of the claim. However, "new" means "different from one of the same category that has existed previously" and "identical" means "being the same" (see Merriam Webster's Collegiate Dictionary). Therefore, it is unclear whether the "new" ring is different from or being the same as the existing ring.

7. Claim 19 recites the limitation "said new ring" and "said existing ring" in lines 1-2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Siu et al.
(U.S. Patent 6,744,769 B1).

Siu et al. discloses in FIG. 3 a mesh network where bi-directional line switched ring (BLSR) are formed for providing a working path and a protection path. Siu et al. teaches in FIG. 12 to dynamically configure protection ring in response to demand. Inherently, a BLSR node has cross-connecting function for switching from working to protection.

Regarding claim 9, inherently, a BLSR switch from working to protection when a failure occurs.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2-7, 10, 16-17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siu et al. (U.S. Patent 6,744,769 B1) in view of Lu (U.S. Patent 5,815,490).

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Siu et al. has been discussed above in regard to claims 1 and 9. Regarding claims 2 and 16, the difference between Siu et al. and the claimed invention is that Siu et al. does not teach a ring map. Lu teaches in FIGS. 4A-4E and FIG. 6a portion of a ring table comprising link information, node ID and ring ID. One of ordinary skill in the art would have been motivated to combine the teaching of Lu with the ring configuration method of Siu et al. to maintain a ring table because a ring table keeps track of provisioning information that is necessary for performing protection switch. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to maintain a ring table, as taught by Lu, in the ring configuration method of Siu et al. because a ring table keeps track of provisioning information that is necessary for performing protection switch.

Regarding claims 3 and 17, Lu teaches in col. 8, lines 22-46 WDM-based optical network.

Regarding claims 4-5, 10-13 and 18-19, Lu teaches in FIG. 4A that a ring has a ring ID and teaches in FIG. 4D that a node has node ID. In a situation where a node belongs to a plurality of rings, it is obvious to use the ring ID together with the node ID to identify a node. That is, if a node belongs to the same ring, it has the same ring ID/node ID combination. For two different rings, a node common to the two rings has different ring ID/node ID combinations.

Regarding claim 6, Siu et al. teaches in col. 2, lines 21-23 that in a mesh network, spare capacities are shared for protection purpose.

Regarding claims 7 and 20, Lu teaches in FIG. 1B a subnetwork controller SNC for ring management.

Regarding claim 14, Lu teaches in col. 8, lines 22-46 WDM-based optical network.

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12. Claims 8 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siu et al. (U.S. Patent 6,744,769 B1) in view of Ramamurthy et al. (R. Ramamurthy et al., "Capacity Performance of Dynamic Provisioning in Optical Networks", Journal of Lightwave Technology, Vol. 19, No. 1, January 2001).

Siu et al. has been discussed above in regard to claims 1 and 9. The difference between Siu et al. and the claimed invention is that Siu et al. does not teach a distributed manner for generating network map and setting up paths. Ramamurthy et al. teaches in p. 42, Section C to use distributed routing protocol such as OSPF and its extension to collect network information. One of ordinary skill in the art would have been motivated to combine the teaching of Ramamurthy et al. with the ring configuration method of Siu et al. because a distributed network management system scales well as the size of the network increases and has high reliability. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use distributed routing protocol for generating network map and setting up paths, as taught by Ramamurthy et al., in the ring configuration method of Siu et al. because a distributed network management system scales well as the size of the network increases and has high reliability.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shi K. Li whose telephone number is 571 272-3031. The examiner can normally be reached on Monday-Friday (8:30 a.m. - 5:00 p.m.).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

skl

12 August 2005


JASON CHAN
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